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| | Subject Name & Code : Machine Learning (PCIT601) Exar | | | | | ım Na | me :QI |
|----|--|------|--|--------|---|-------|---|
| | | | | | | | |
| 1. | What is Machine learning? | | | | | | [A] |
| | A) The autonomous acquisition of knowledge through the use of computer programs | B) | The autonomous acquisition of knowledge through the use of manual programs | C) | The selective acquisition of knowledge through the use of computer programs | D) | The selective acquisition of knowledge through the use of manual programs |
| 2. | Which of the factors affect the performance of | lear | ner system does not include? | | | | [D] |
| | A) Representation scheme used | B) | Training scenario | C) | Type of feedback | D) | Good data structures |
| 3. | Different learning methods does not include? | | | | | | [D] |
| | A) Memorization | B) | Analogy | C) | Deduction | D) | Introduction |
| 4. | Some telecommunication company wants to s | egm | ent their customers into distinct groups ,thi | s is a | an example of | | [C] |
| | A) supervised learning | B) | reinforcement learning | C) | unsupervised learning | D) | data extraction |
| 5. | In the example of predicting number of babies based on stork's population ,Number of babies is | | | | | [A] | |
| | A) outcome | B) | feature | C) | observation | D) | attribute |
| 6. | What is true about Machine Learning? | | | | | | [D] |
| | Machine Learning (ML) is that field of computer science | B) | ML is a type of artificial intelligence that extract patterns out of raw data by using an algorithm or method. | C) | he main focus of ML is to allow computer systems learn from experience without being explicitly programmed or human intervention | D) | All of the mentioned |
| 7. | ML is a field of AI consisting of learning algorit | hms | that? | | | | [D] |
| | A) Improve their performance | B) | At executing some task | C) | Over time with experience | D) | All of the mentioned |
| 8. | The action of a robot arm specify to P | lace | block A on block B. | | | | [A] |

Exam Name: O1

Subject Name & Code: Machine Learning (PCIT601)

37.

A) Neural Network

A) Negative

C) Case-based

Negative or Positive

B) Support Vector Machines

FIND-S Algorithm starts from the most specific hypothesis and generalize it by considering only

B) Positive

D) Linear Regression

None of the mentioned

[B]

62. Neural Networks are complex functions with many parameter

[A]

| | Subject Name & Code : Machine Learning (PCIT601) | | | | | | Exam Name : Q1 | | | |
|-----|---|-------|---|----|---|----|---------------------------|--|--|--|
| | A) Linear | B) | Non linear | C) | Discreate | D) | Exponential | | | |
| 63. | the general tasks that are performed with back | prop | pagation algorithm | | | | [D] | | | |
| | A) Pattern mapping | B) | Prediction | C) | Function approximation | D) | All of the mentioned | | | |
| 64. | In backpropagation rule, how to stop the learning | ing p | process? | | | | [B] | | | |
| | A) No heuristic criteria exist | B) | On basis of average gradient value | C) | There is convergence involved | D) | None of the mentioned | | | |
| 65. | Applications of NN (Neural Network) | | | | | | [D] | | | |
| | A) Risk management | B) | Data validation | C) | Sales forecasting | D) | All of the mentioned | | | |
| 66. | The network that involves backward links from | out | put to the input and hidden layers is known | as | | | [A] | | | |
| | A) Recurrent neural network | B) | Self organizing maps | C) | Perceptrons | D) | Single layered perceptron | | | |
| 67. | Which of the following is/are the decision tree | node | es? | | | | [D] | | | |
| | A) End Nodes | B) | Decision Nodes | C) | Chance Nodes | D) | All of the mentioned | | | |
| 68. | End Nodes are represented by which of the following | llowi | ng | | | | [B] | | | |
| | A) Solar street light | B) | Triangles | C) | Circles | D) | Squares | | | |
| 69. | Decision Nodes are represented by which of the | ne fo | ollowing | | | | [D] | | | |
| | A) Solar street light | B) | Triangles | C) | Circles | D) | Squares | | | |
| 70. | Chance Nodes are represented by which of the | e fol | lowing | | | | [C] | | | |
| | A) Solar street light | B) | Triangles | C) | Circles | D) | Squares | | | |
| 71. | Advantage of Decision Trees | | | | | | [D] | | | |
| | A) Possible Scenarios can be added | B) | Use a white box model, if given result is provided by a model | C) | Worst, best and expected values can be determined for different scenarios | D) | All of the mentioned | | | |
| | | | provided by a model | | So determined for uniform decidines | | | | | |
| 72. | terms are required for building a bayes model. | | 2 | C) | 2 | D) | [C] | | | |
| | A) 1 | B) | 2 | C) | S | D) | 4 | | | |

| 73. | Which of the following is the consequence between a node and its predecessors while creating bayesian network? | | | | | | |
|-----|--|--------|--|----|--|----|-----------------------|
| | A) Conditionally independent | B) | Functionally dependent | C) | Both Conditionally dependant & Dependant | D) | Dependent |
| 74. | Why it is needed to make probabilistic system | ns fea | asible in the world? | | | | [C] |
| | A) Feasibility | B) | Reliability | C) | Crucial robustness | D) | None of the mentioned |
| 75. | Bayes rule can be used for:- | | | | | | [C] |
| | A) Solving queries | B) | Increasing complexity | C) | Answering probabilistic query | D) | Decreasing complexity |
| 76. | provides way and means of weighing up the d | desira | ability of goals and the likelihood of achievi | ng | | | [A] |
| | A) Utility theory | B) | Decision theory | C) | Bayesian networks | D) | Probability theory |
| 77. | Which of the following provided by the Bayesi | ian N | letwork? | | | | [C] |
| | A) Complete description of the problem | B) | Partial description of the domain | C) | Complete description of the domain | D) | All of the mentioned |
| 78. | Probability provides a way of summarizing the that comes from our laziness and | | | | | | [B] |
| | A) Belief | B) | Uncertaintity | C) | Joint probability distributions | D) | Randomness |
| 79. | The entries in the full joint probability distribution can be calculated as | | | | | | [C] |
| | A) Using variables | B) | Both Using variables & information | C) | Using information | D) | All of the mentioned |
| 80. | Causal chain (For example, Smoking cause c | | [A] | | | | |
| | A) Conditionally Independence | B) | Conditionally Dependence | C) | Conditionally Dependence & Independence | D) | None of the mentioned |
| 81. | The bayesian network can be used to answer | | [B] | | | | |
| | A) Full distribution | B) | Joint distribution | C) | Partial distribution | D) | All of the mentioned |
| 82. | Bayesian networks allow compact specificatio | on of: | ; - | | | | [A] |
| | A) Joint probability distributions | B) | Belief | C) | Propositional logic statements | D) | All of the mentioned |

Multi-class

classification problems

ML algorithms to predict a class of

- 92. A person trained to interact with a human expert in order to capture their knowledge.
 - A) knowledge programmer

B) knowledge developer

C) knowledge engineer

D) knowledge extractor

[D]

[A]

[C]

[A]

[A]

[D]

[A]

[B]

[C]

[A]

- 93. Full form of MDL?
 - A) Minimum Description Length

- B) Maximum Description Length
- C) Minimum Domain Length
- D) None of the mentioned

- 94. For the analysis of ML algorithms, we need
 - A) Computational learning theory
- B) Statistical learning theory

- C) Statistical learning theory & Computational learning theory
- D) None of the mentioned

- 95. PAC stand for
 - A) Probably Approximate Correct
- B) Probably Approx Correct

- C) Probably Approximate Computation
- D) Probably Approx Computation
- 96. hypothesis h with respect to target concept c and distribution D, is the probability that h will misclassify an instance drawn at random according to D.
 - A) True Error

B) Type 1 Error

C) Type 2 Error

D) None of the mentioned

- 97. What are the area CLT comprised of?
 - A) Sample Complexity

B) Computational Complexity

C) Mistake Bound

D) All of the mentioned

- 98. What area of CLT tells "How many examples we need to find a good hypothesis?"?
 - A) Sample Complexity

B) Computational Complexity

C) Mistake Bound

D) None of the mentioned

- 99. What area of CLT tells "How much computational power we need to find a good hypothesis?"?
 - A) Sample Complexity

B) Computational Complexity

C) Mistake Bound

D) None of the mentioned

- 100. What area of CLT tells "How many mistakes we will make before finding a good hypothesis?"?
 - A) Sample Complexity

B) Computational Complexity

C) Mistake Bound

D) None of the mentioned

- 101. How large is the hypothesis space when we have n Boolean attributes?
 - A) |H| = 3 n

B) |H| = 2 n

C) |H| = 1 n

) |H| = 4n

110. What is/are true about Distance-weighted KNN?

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[C]

128. Produces two new offspring from two parent string by copying selected bits from each parent is called

[A]

[D]

A) Mutation

B) Inheritance

C) Crossover

D) None of the mentioned

129. Each schema the set of bit strings containing the indicated as

A) 0s, 1s

B) only 0s

C) only 1s

D) 0s. 1s. *s

130. 0*10 represents the set of bit strings that includes exactly (A) 0010, 0110

[A]

A) 0010, 0010

B) 0100, 0110

C) 0100, 0010

D) 0000.0110

131. Correct (h) is the percent of all training examples correctly classified by hypothesis then Fitness function is equal to

[A]

- A) Fitness (h) = (correct (h)) 2
- B) Fitness (h) = (correct (h)) 3
- C) Fitness (h) = (correct (h))
- D) Fitness (h) = (correct (h)) 4

132. evolution over many generations was directly influenced by the experiences of individual organisms during their lifetime

[B]

A) Baldwin

B) Lamarckian

C) Baves

D) None of the mentioned

133. Search through the hypothesis space cannot be characterized. Why?

[A]

[B]

[C]

- A) Hypotheses are created by crossover and mutation operators that allow radical changes between successive generations
- B) Hypotheses are not created by crossover and mutation
- C) Hypotheses are created by crossover and not a mutation operators that allow radical changes between successive generations
- D) None of the mentioned

134. ILP stand for

- A) Inductive Logical programming
- B) Inductive Logic Programming
- C) Inductive Logical Program
- D) Inductive Logic Program

135. What is/are the requirement for the Learn-One-Rule method?

- A) Input, accepts a set of +ve and -ve training examples.
- B) Output, delivers a single rule that covers C) many +ve examples and few -ve.
- Input, accepts a set of +ve and -ve training examples. & Output, delivers a single rule that covers many +ve examples & Output rule has a high accuracy but not necessarily a highand few -ve.
- D) Output rule has a high accuracy but not necessarily a high

136. is any predicate (or its negation) applied to any set of terms

[A]

A) Literal

B) Null

C) Clause

D) None of the mentioned

computes the description of this set

without explicitly enumerating all of its

Elimination algorithm is to output a

consistent with the training

description of the set of all hypotheses

more-general-than partial ordering

and maintaining a compact representation of the set of

consistent

154. What is Gini Index?

[A]